



EntrepreNews & Views

Building Tomorrow's Economy

WHAT IS SCIENCE?

Miaoulis encouraged educational leaders in Washington DC to consider **the importance of engineering** by envisioning a world without man-made things.

"Imagine the chairs gone, the tables gone. . . . And what have you?

Well, we would all be naked in the fields, running away from the tiger.

So when we teach science, why do we only teach about the natural world?"

How Do Science and Entrepreneurship Connect?

As a keynote speaker at the 2nd National High School Leadership Summit, December, 2004, Ioannis Miaoulis told the audience of over 1000 educational leaders that we have not changed the way we teach science in over 100 years.

Technology is an integral part of people's lives. Technological literacy will allow them to make more informed decisions on the products they use, which affect their life so much. While science is an essential part of the K-12 curriculum there has been traditionally very little emphasis placed

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The Partnership for America's Future is proud to recognize the 2005 Inductees to the National Gallery for Young Inventors...high school students that won with their ideas for such items as a Di-Conical Contracting Actuator...Winning young inventors came from all over the US...Michigan, Kentucky, California, New York and Texas. For details on these young winners and their inventions go to <www.pafinc.com>



BUILDING BRIDGES for LIFELONG LEARNING Entrepreneurship Education at the Forefront in Nebraska

Nebraska has always had commitments to strong economic development and enhancing entrepreneurship education, but the strong relationship between the two has come to the forefront in the last year.

FutureForce Nebraska is a group, born from formal and informal discussions in May of 2004, focused on the question, "How can postsecondary education better meet the workforce needs of growth industries and provide citizens with the skills needed for rewarding work?" The solution arrived at was, "Let's partner to develop career pathways to prepare both adults and traditional students for work in targeted industries."

FutureForce Nebraska has evolved from that discussion. The uniqueness of FutureForce Nebraska is that it has brought together representatives from the Governor's office, state agencies, the State legislature and U.S. Congress, educators at all levels (K-20), and business and industry to focus on economic development AND educational enhancement. FutureForce has brought these partners together to share what each is doing, to "inventory" programs and services related to economic development and education, to find commonalities, to discover how best to leverage existing resources, and to target efforts for maximum effectiveness. Nebraska Career Education, by leveraging Perkins leadership funds and with the active participation of staff members, has provided strong support for FutureForce Nebraska.

Where does Entrepreneurship Education Fit in FutureForce Nebraska?

The FutureForce Nebraska Career Pathways Project is a project to enhance awareness, preparation, and training for students (K-20) and adults in careers and industries targeted for growth by the Nebraska Department of Economic Development. **So, it is based on valid research and growth projections.**

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**The Consortium for
Entrepreneurship
Education**
1601 West Fifth Avenue,
#199
Columbus, OH 43212

614-486-6538
Fax 419-791-8922
Cashmore@entre-ed.org
www.entre-ed.org

Managing Editor...
* **Cathy Ashmore**

Contributing Writers...
* **Ioannis Miaoulis**,
Boston Museum of Science
* **Nick Frankovits**,
Partnership for America's
Future Akron, OH
Gregg Christensen,
Nebraska Department of
Education

How Do Science and Entrepreneurship Connect? (continued from page 1)

on technology. I think it is essential to have technology as the part of the curriculum. Most children know a lot about how volcanoes happen but very few know how cars work. How often do we sit in a volcano as opposed to the car? In the US, even politics is tied to technology. As we vote we should be better informed.

While a professor and dean in the School of Engineering at Tufts, Ioannis Miaoulis used creativity and innovation to enhance the educational experience for future engineers. As President and Director of Boston's Museum of Science he is employing many of the same practices and themes in trying to expose kids and adults alike to the wonders of engineering.

How are entrepreneurs and engineers alike? "People think computers are technology, but computers are only a tiny part. When I first came to this country, I was surprised to know how little people know about how their world is made," the Greek national explained.

Miaoulis emphasized that people of any age can be engineers if they have a desire to make things work. The *raison d'être* for engineers is, essentially, to be practical. "Engineers think about a need," Miaoulis said. Entrepreneurs likewise think about a need. The difference is that they find a way to take a solution to market and put the answer for such a need into real use.

The skills for both of these approaches, engineering and entrepreneurship, are essential to building the capacity of America's future leaders. Educators should be working together to connect these two very diverse career areas, building the concept of partnerships and future thinking.

Early Grades – Planting the Seeds Children need to start learning about engineering at a young age because "technological literacy is no luxury — it's now basic," said Ioannis Miaoulis,

Why is it important to teach engineering in grade schools, anyway? First, Miaoulis said, "Engineering in these grades offers a wonderful range of problems and projects" that can encourage a kid to "pull together a range of disciplines and see a project through from start to finish."

Second, learning about engineering in school can encourage children from underrepresented groups to imagine a career as an engineer. "And we need engineers desperately," Miaoulis observed.

Third, "Kids today play with computers; they don't tinker and build things. Their spatial skills may become limited. Introducing engineering into younger grades can sharpen these skills."

America's Future - Miaoulis says that while becoming computer-literate is important, becoming engineering-literate is perhaps even more critical. He agrees that it is not enough to understand how things work, but know that this is the foundation to finding ways for things to work better. But even that is not enough if we don't teach people how to make these ideas into viable business opportunities.

Combining marketing and entrepreneurial skills with science and technology may be the best answer to encouraging innovation in America's future.

The National Center for Technological Literacy harnesses the Museum's spirit of fun education to inspire children, educators, and the public to learn how things work. We have also expanded our role as a partner in education serving teachers, parents, and students as a community resource. Dynamic new exhibits foster lifelong curiosity in science and technology and support what children are learning in school. Our Educator Resource Center offers models and materials to help teachers integrate engineering and technology into their science curricula. And expanded outreach efforts—such as Traveling Programs, Courses, the Computer Clubhouse, and numerous other initiatives—encourage a love of science and technology in all our regional communities.

The Museum of Science has an extraordinary story to tell: new interactive exhibits; leadership in technological literacy; attention to pioneering discoveries in biomedical and life sciences. We invite you to visit. Discover how this dynamic national institution has inspired people and changed lives since 1830. It might even change yours.

Ioannis (Yannis) N. Miaoulis, President and Director, Boston Museum of Science
Library and Resource Center Online, library@mos.org, (617) 589-0170, www.mos.org

Nebraska - BUILDING BRIDGES for LIFELONG LEARNING



The Salesmanship class at Northeast Community College practiced entrepreneurship in an "Apprentice-type Project" creating their own lemonade stands. Students were required to create their business, sell this idea to a sponsor, make and sell the product(s), find a location to set up the stand, develop advertising, sell their products and donate profits to a charity.



(Continued from Page 1)

Central to accomplishing the objectives of FutureForce is for higher education in Nebraska to be responsive to the workforce development and ongoing training needs of employers and industries. The ultimate goal is to sustain a knowledgeable, trained and skilled workforce in both rural and urban areas of the State.

Career Pathways Originally, ten career pathways matching the targeted industries, were identified as crucial for Nebraska, but it quickly became apparent that an eleventh—entrepreneurship needed to be added to the mix.

Efforts are underway in several of these pathways to develop curriculum and action plans to foster and nurture growth and better prepare Nebraskans for entering these fields of employment. The newest pathway, entrepreneurship, has actually taken on a "life of its own" with the close participation of Congressman Tom Osborne's staff. Congressman Osborne's focus is on keeping youth in Nebraska and increasing the economic prosperity in rural Nebraska. The ultimate goal is to help young people, as well as individuals of all ages, realize that entrepreneurship is a viable career option.

Nebraska is a state in which 90% of the population resides in just 5 counties (all clustered around Omaha and Lincoln). For all of Nebraska to thrive and grow, there are choices and directions that must be decided...then action must follow. One of those choices is that economic development needs to be tied with education to meet the projected labor market demands. And, any economic development in our state must factor in entrepreneurship as a key strategy for both rural AND urban areas to grow.

NET-FORCE Begins

The FutureForce Task Force quickly came to the conclusion that entrepreneurship education needed its own sub-group or Task Force; a group that would focus energies at all levels of education to enhance entrepreneurship education. The group arrived at a name to capture the vitality and excitement of their activities...NET Force, Nebraska Entrepreneurship Task Force.

Strong advocacy by Congressman Tom Osborne and his staff helped energize NET Force and the results in a very short period of time and just a few group meetings have been amazing. Members of Congressman Osborne's staff have been present at every meeting of the entrepreneurship task force, and Congressman Osborne himself joined the group in March to share his vision for entrepreneurship development and entrepreneurship education for the state.

The mission of NET Force is to "identify and leverage educational resources to Educate, Engage, and Empower current and potential Entrepreneurs." Bruce Rieker, Congressman Osborne's Chief of Staff coined the simple, yet targeted value-added statement for the group: Educate, Engage and Empower Entrepreneurs (E-4).

The goals of the group include increasing access to and utilizing entrepreneurship curriculum, education and training; identifying, coordinating and leveraging resources for ongoing support of Nebraska entrepreneurs, locating and securing funding to further the mission, and increasing the marketing and outreach of entrepreneurial programs and services in the state.

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BONUS ACTIVITY

The New Normal -

EntrepreNews & Views

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Thanks to the Nebraska Department of Education for this activity that focuses on **DISCOVERY** - the first of the Entrepreneurial Processes in the National Content Standards for Entrepreneurship Education ©



A Entrepreneurial Processes - Understands concepts and processes associated with successful entrepreneurial performance

Discovery	A.01	Explain the need for entrepreneurial discovery
	A.02	Discuss entrepreneurial discovery processes
	A.03	Assess global trends and opportunities
	A.04	Determine opportunities for venture creation

Discovery is the stage in the entrepreneurial process in which the entrepreneur generates ideas, recognizes opportunities, and determines the feasibility of ideas, markets, and ventures. This activity uses ideas and concepts proposed in the book, *The New Normal* by Roger McNamee (Penguin Books© 2004), to sharpen our focus on what the future may hold for prospective entrepreneurs.

The *New Normal* addresses how our entire world has changed since the boom times of the 90's. According to the author, the *New Normal* actually began on March 10, 2000 when the NASDAQ began a sharp plunge. And, that starting point was quickly followed by the events of September 11, 2001, the wars in Afghanistan and Iraq, and the ever-mounting corporate scandals of huge ethical transgressions by CEOs, CFOs, Boards of Directors, and top management.

The North Star According to McNamee, all of this rapid change and negativity has left us all feeling the need for more "normalcy," whatever that is. What we need, in his own words, is "the economic equivalent of the North Star, a fixed object in space that we can use to navigate the *New Normal*."

Four Secrets of the New Normal What are those secrets? Once you read them, you may say, "Well, that's just common sense." But dig deeper, think deeper as to how each secret may impact you, your future work life, and your potential as an entrepreneur.

- 1) The power of the individual is rising rapidly.
- 2) The world offers more choices than ever, but it also requires us to make more decisions.
- 3) Technology and globalization are facts of life; they rule our economy and they aren't going away.
- 4) None of us has enough time, so making the most of the time we have is essential.

Library or Web Search Time Now, as an entrepreneur or potential entrepreneur, each of those "secrets" can and will have a major impact on your success. Any good entrepreneur has to do their research up-front and in-depth to examine all facets of their business idea, potential for success, and potential challenges in order to develop a sound business plan. Scanning the environment and becoming a fact-finding detective helps take emotions out of deciding to become an entrepreneur and shines the harsh light of reality on the potential for success.

Globalization's Impact on Success as an Entrepreneur Your mission is to conduct a library or web search to find at least two articles that support Secret #3 (Technology and globalization are facts of life), read them, and write a short synopsis of each that addresses the following questions

Important Reminder: Technology is much more than just computers. Scientific discoveries in the areas of biotechnology, nanotechnology and many other areas are leading the way in innovations and new venture start-ups.

Focus Questions based on National Standards:

- 1) How could the new technology highlighted in each article become a springboard for an entrepreneurial venture?
- 2) Are there uses for this technology that you can think of that aren't addressed in the article(s)?
- 3) How could an entrepreneur leverage this new technology into a successful business enterprise OR use it as a tool to make an existing or new business enterprise more successful?
- 4) Is the technology more likely to be short-term or long-term in its practical use?

Nebraska - BUILDING BRIDGES for LIFELONG LEARNING

(Continued from Page 3)



Knox County High School
Students organize E-Day



National entrepreneurship winners at FBLA conference



Crane Coffee Co. shares expertise with marketing students

What's the Long-Range Vision?

There is a never-ending stream of ideas, but never enough time or money to embark on them all. So, if you wish, here is a short list in no particular priority order, of what NET-Force hopes to accomplish in the months and years ahead.

- * Develop a plan to provide entrepreneur educational opportunities for targeted populations in Nebraska (underserved populations, minorities, women, micro-entrepreneurs, rural populations)
- * Seek federal, foundation and other sources of funding to provide entrepreneurship educational opportunities
- * Develop resource centers at each of the community colleges that will provide information and assistance for those interested in entrepreneurship
- * Create a K-20 career pathway with emphasis on entrepreneurship
- * Coordinate educational activities with FutureForce Nebraska (Career Pathways)
- * Partner with higher education institutions on articulation opportunities and entrepreneurship programs
- * Infuse entrepreneurship education throughout all K-20 career pathways.

What's Been Achieved?

Initial meetings focused on bringing partners to the table, sharing programs and strategies each offered, and "inventorying" what already existed. The Nebraska Department of Education has utilized the Career Fields model, Perkins innovation grant funding, and the time and efforts of staff to enhance and assist the work of NET-Force. Three major activities were undertaken and "went live" in May.

1. An Entrepreneurship Education web site, <http://www.nde.state.ne.us/entreped/>, provides an easily accessible information resource for Nebraska entrepreneurship educators, K-20.
2. Nebraska E-News Monthly's is published in PDF format, sent free of charge via e-mail to "subscribers", and placed on the web site for all to access. Each issue focuses on state and national news, teaching tips and trends, plus a Targeted Teaching Topic that is based on the National Content Standards for Entrepreneurship Education. Support materials, including lesson plans and handouts are placed with the issue on the Nebraska Entrepreneurship Education web site at <http://www.nde.state.ne.us/entreped/enews.html>.
3. A listserv for sharing information and to pose questions and provide answers for entrepreneurship educators is now active. And, it's not just limited to Nebraskans. You can sign up at <http://lists.k12.ne.us/mailman/listinfo/entre-ed/>.

What's Next to Accomplish?

The group has moved on to planning meetings to develop a common state-wide Associates of Applied Sciences Business Degree in Entrepreneurship at each of the community colleges. In addition, development of a common "core" of four college-level college courses to create a shorter, more focused certificate program in the community colleges has begun. Faculty members, with the blessing of the Chief Instructional Officers of the community colleges, are working hard to develop common course titles and syllabi. The national Content Standards for Entrepreneurship Education have been shared and are a reference point for this work.

Aggressive—you bet? Visionary—We think so!

Beneficial to students of all ages—Definitely! Nebraska is reshaping not just entrepreneurship education, but education as a whole. Stay tuned to see what a dedicated, determined, and hard-working group from all levels of education (K-20), private industry, and government agencies can do when they have a common vision and a passion for success.

For more information about FutureForce Nebraska, log in to www.futureforcenebraska.org.

For more information about Entrepreneurship Education in Nebraska, go to <http://www.nde.state.ne.us/entreped/> or e-mail Gregg Christensen at gchrste@nde.state.ne.us.

The Ohio Council on Economic Education
The Ohio State University
College of Education
1900 Kenny Rd.
Columbus, OH 43210
12707.900125.61801

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PROFESSIONAL DEVELOPMENT & Resources

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November 5 - 8, 2005....

EVERYONE WILL BE THERE....WILL YOU?

The 23rd Annual Entrepreneurship Education FORUM will be a great opportunity to meet the leaders in the field. Join us in Orlando, Florida to fill up with great ideas to create and improve opportunities for your students to learn about becoming an entrepreneur.

The program is a great "smorbasbord" of methods and materials to support entrepreneurship as a lifelong learning process. Talk with entrepreneurs from the area who share their stories. Learn how to apply the new National Content Standards for Entrepreneurship Education. Visit exhibitors who represent the resources available for this growing field of education. Interact with teachers and program developers who are there to share their successes and advice.

The conference as a whole will have the great experience of visiting Disney's EPCOT(R) to enjoy the Kauffman Foundation-sponsored "Opportunity City" and an evening in the park.

For the detailed program check out our website:

http://www.entre-ed.org/_network/forum.htm

Check out the Business Plan Pro 2006 PREMIER

Business Plan Pro 2006 PREMIER from Palo Alto Software, Inc. is the most advanced business-planning software available. No other business-planning product compares with this software's functionality and flexibility. "PREMIER" includes extensive detail in the areas of sales forecasting, personnel planning, and generates enhanced profit and loss statements with up to 24 months and 10 years of detailed financials. Your students will benefit from the ability to start their plans from a custom template you tailor and to seamlessly work in teams using the plan collaboration feature.

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